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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,717	02/09/2005	Atsushi Iida	SON-2633	4442

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EXAMINER

EDUN, MUHAMMAD N

ART UNIT PAPER NUMBER

2627

DATE MAILED: 09/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/501,717

Applicant(s)

IIDA ET AL.

Examiner

MUHAMMAD N. EDUN

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 17 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5 and 6 is/are rejected.
- 7) ☒ Claim(s) 3,4 and 7-10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1, 2, 5 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Tateishi (JPA 10-302281).**

Tateishi discloses the invention as claimed. Figs. 1-11 show the optical head having the two-axis actuator driving an objective lens in the focusing and tracking directions having:

a coil bobbin (101) for supporting the objective lens, the optical axis of the objective lens being aligned with the Z axis,

a focusing coil (200) wound around the Z axis and disposed on the coil bobbin,

a pair of tracking coils (221 and 222) wound around the X axis and disposed on both ends of the coil bobbin in the X axis direction,

supporting means (109) for supporting the coil bobbin so that the coil bobbin is movable in the focusing direction and the tracking direction,

two pairs of magnets (301a, 301b, 501 and 502) disposed so that magnets in each pair are disposed opposing on both ends of the corresponding tracking coils in the Y axis direction which is orthogonal to both the Z axis and the X axis, the surfaces of the magnets opposing the tracking coils are magnetized in the Y axis direction and have the same polarity,

a magnetic circuit forming a closed magnetic path in which magnetic lines generated by each pair of magnets sandwiching the focusing coil intersect the tracking coils and the focusing coil (i.e. the arrangement of the magnets (see Fig. 4b) being similar to that as shown in Fig. 1 of the current application, would there have the same magnetic circuit as recited), as set forth in the claims. It should be noted that the Z-axis, even though not specifically describe is a component inherent movement of the objective lens in the focusing and tracking directions.

The reference further teaches: the plurality of flat springs (107a, 107b, 108a and 108b), as set forth in claim 2; the yokes and back yokes (300 and 501) inside the focusing coil on both ends of the objective lens, as set forth in claims 5 and 6. See the

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description of the apparatus and figures for further details relating to the limitations as set forth in the claims.

### ***Allowable Subject Matter***

**Claims 3, 4 and 7-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.**

**The following is a statement of reasons for the indication of allowable subject matter:**

The prior art of record alone or in combination does not teach or suggest the optical head of claim 1 having the further limitations as set forth in claims 3, 4 and 7-10.

### ***Conclusion***

**The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.**

Ohkuma et al. (6,480,460) and Izuka (5,666,235), both disclose an optical apparatus having an optical head having the ability of moving in the tracking and focusing directions.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MUHAMMAD N. EDUN whose telephone number is 571-272-7617. The examiner can normally be reached on FLEXITIME.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
**MUHAMMAD N EDUN**  
**Primary Examiner**  
**Art Unit 2627**